



## MORBIDITY AND MORTALITY WEEKLY REPORT

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*Epidemiologic Notes and Reports***Occupational Electrocution — Texas, 1981-1985**

A recent review of 1982 death certificates in Texas identified electrocution as the fifth leading cause of fatal occupational injuries among men (1). To help understand the circumstances leading to these fatal events, the Texas Department of Health has reviewed all occupational electrocutions noted on Texas death certificates from 1981 through 1985.

The study included only civilian decedents who were 16 years of age or older and who were electrocuted while at work in Texas.\* Death certificates for decedents meeting this definition were reviewed for information on the decedent's occupation and the industry involved and for any notation regarding the circumstances surrounding the event. Information on the occupation and industry was coded according to the classification index of the Bureau of the Census (2).

A total of 337 workers were electrocuted at Texas worksites during the 5-year study period. All but one of the decedents were male. Age at death ranged from 17 to 77 years, with a mean of 31.5 years; 238 (71%) of the decedents were less than 35 years old. These work-related electrocutions were responsible for an estimated 11,337 years of potential life lost before age 65. White, non-Hispanic males accounted for 77% of the fatalities; Hispanic males, for 16%; and black males, for 6%.

Electrocution most frequently involved construction laborers, oilfield workers, electricians working for utility companies, other electricians, and truck drivers (Table 1). Of the 174 fatalities occurring in these five occupational groups, 51 (29%) occurred when workers came in direct contact with energized lines or power sources; 21 (12%) occurred when transport vehicles (trucks, forklifts, booms, etc.) came in contact with energized lines; 13 (7%) resulted from contact with equipment the worker was operating (power saws, drilling rigs, electric motors, etc.); 10 (6%) occurred when materials or equipment (ladders, grain augers, scaffolds, pipes, etc.) that the worker was using contacted energized wires or power sources; and 12 (7%) resulted from other circumstances. Data from the remaining 67 (39%) death certificates for workers in these occupational groups were insufficient to categorize the circumstances surrounding the deaths.

\*Death classified as category E925 according to the International Classification of Diseases, 9th Revision, and positive response to the "Injury at work?" question.

*Electrocution — Continued*

Nearly half (47%) of the electrocutions occurred in the construction industry. Another quarter of the fatalities occurred in the oil and gas extraction industries (13%) and the transportation, communications, and utilities industries (11%). Based on estimates of industry-specific employment over the 5-year study period, the average annual mortality rate for occupational electrocutions was 7.5/100,000 persons at risk in the construction industry; 4.0/100,000 in the oil and gas industry; and 2.0/100,000 in the transportation, communications, and utilities industries. In contrast, the average annual mortality rate for occupational electrocutions in all other industries combined was 0.3/100,000. From 1981 through 1985, the annual number of occupational electrocutions declined steadily (Figure 1). Examination of the yearly industry-specific totals indicated that only the construction industry had a significant decline in the number of deaths over the 5-year study period. The decrease in construction activity in Texas during this time could account for this change.

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**Editorial Note:** From previous on-site investigations of 121 occupational electrocutions, the National Institute for Occupational Safety and Health (NIOSH) has identified five primary causes of such fatalities: 1) direct physical contact between the worker and energized lines; 2) contact of a vehicular boom with energized powerlines; 3) contact of other equipment with energized powerlines; 4) direct contact of the worker with energized equipment or conductors; and 5) improperly installed or broken equipment (3-8). Comprehensive on-site reviews of the electrocutions in Texas had not been conducted; however, conclusions regarding the primary causes of worksite electrocutions from the Texas death certificate-based study were similar to those from the NIOSH investigations. Data routinely available from death certificates are useful for directing preventive efforts because they document the frequency of work-related electrocutions and identify the occupations and industries in which these fatalities are occurring most frequently.

**TABLE 1. Occupational electrocutions, by occupation and industry — Texas, 1981-1985**

Occupation <sup>†</sup>	Industry*					Total	
	Construction (060)	Oil & Gas Extraction (042)	Transportation, Communications, Utilities (410-460)	All Other			
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Electrician (575, 576)	49 (14.5)	2 (0.6)	1 (0.3)	14 (4.2)		66	(19.6)
Construction							
Laborer (869)	38 (11.3)	0 (0.0)	1 (0.3)	1 (0.3)		40	(11.9)
Oilfield Worker (617)	0 (0.0)	21 (6.2)	0 (0.0)	9 (2.7)		30	(8.9)
Utility							
Electrician (577)	1 (0.3)	0 (0.0)	21 (6.2)	0 (0.0)		22	(6.5)
Truck Driver (804)	2 (0.6)	2 (0.6)	9 (2.7)	3 (0.9)		16	(4.7)
All Other	69 (20.5)	19 (5.6)	6 (1.8)	69 (20.5)		163	(48.4)
<b>Total</b>	<b>159 (47.2)</b>	<b>44 (13.1)</b>	<b>38 (11.3)</b>	<b>96 (28.5)</b>		<b>337</b>	<b>(100.0)</b>

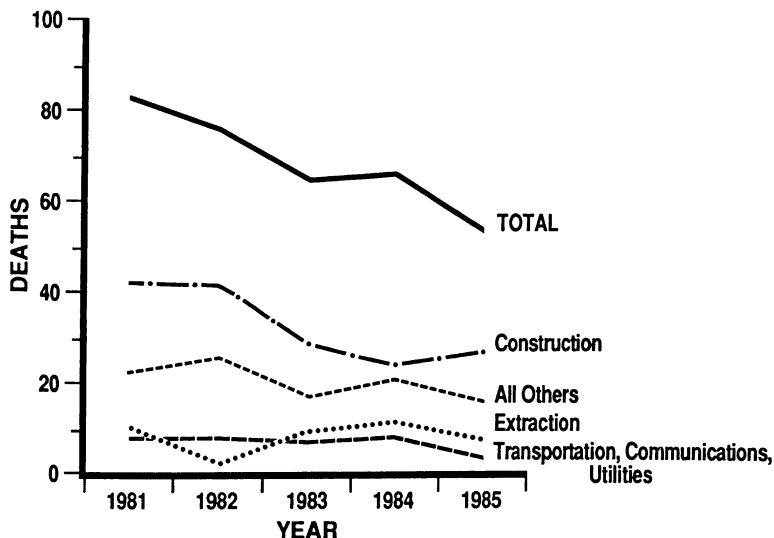
\*Bureau of the Census Classified Index of Industry Codes are given.

†Bureau of the Census Classified Index of Occupation Codes are given.

*Electrocution — Continued*

Texas workers who died from electrocutions were younger (32 years of age) than the average worker dying from an occupational fatality (37 years of age) in Texas. This difference underscores the need for training new or younger workers to be aware of the risk of electrocution. Employers engaged in construction and other high-risk activities should ensure that all workers, particularly those in occupations at greatest risk (Table 1), are familiar with appropriate safety precautions for working near energized lines. Electrical equipment should be kept in sound working condition, inspected regularly, and used appropriately.

**FIGURE 1. Annual number of fatal occupational electrocutions — Texas, 1981-1985**

*References*

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## Lack of Transmission of Human Immunodeficiency Virus Through Rh<sub>0</sub>(D) Immune Globulin (Human)

On September 18, 1987, the Armed Forces Medical Logistical Office issued instructions to temporarily suspend from distribution and use in military hospitals one lot (RHG 636) of RhoGAM\* Rh<sub>0</sub>(D) Immune Globulin (human) (Rh-IG), manufactured by Ortho Diagnostic Systems, Inc. This action was taken because a woman on active duty who had received an injection from the lot was subsequently found to be infected with human immunodeficiency virus (HIV). The woman received RhoGAM lot RHG 636 in September 1986, prior to the birth of her second child in December 1986. In addition, she had received an earlier injection of Rh-IG from a different lot in May 1985, prior to the birth of her first child.

The woman was first tested for HIV in November 1986 as part of the military screening program and was found to be seropositive for HIV antibodies at that time. At present, she remains seropositive with evidence of severe immunodeficiency but has not developed AIDS. Her first child, born in July 1985, was negative for HIV antibodies when tested in January 1987. Her second child tested positive for HIV antibodies at birth, but subsequent serologic testing performed at 9 months of age was negative, reflecting the loss of passively derived maternal antibody and the absence of infection.

An epidemiologic investigation determined that this woman very likely had a behavioral risk factor for infection with HIV. Samples of both Rh-IG lots from which the woman had received treatment have been studied by the U.S. Food and Drug Administration. They have been found to be free of anti-HIV antibodies. Lot RHG 636 was also tested and found to be free of HIV antigen. In addition, review of the manufacturer's records for RhoGAM lot RHG 636 confirmed that all plasma used for that lot had been screened for antibodies to HIV and found negative and that all steps in its manufacture were in accordance with good manufacturing practices.

*Reported by: Center for Drugs and Biologics, Food and Drug Administration. Office of the Surgeon General, US Army. AIDS Program, Center for Infectious Diseases, CDC.*

**Editorial Note:** Approximately 500,000 doses of Rh-IG are administered annually to an estimated 350,000 women in the United States. Rh-IG and other immune globulins used in the United States are produced by several manufacturers using one of the modifications of the Cohn-Oncley fractionation process (1,2), which has been shown to be effective in removing HIV by partitioning and inactivation (3). Since late April 1985, all units of plasma for production of Rh-IG have been screened for antibodies to HIV, and all repeatedly reactive units have been discarded. Several epidemiologic and laboratory studies have shown that recipients of hepatitis B immune globulin (HBIG) and immune globulin (IG), including recipients of lots manufactured before April 1985, have not developed either antibody responses indicative of HIV infection or clinical illness associated with HIV infection (4). Low levels of passively acquired HIV antibody from some preparations of HBIG that were known to contain high levels of HIV antibody have been reported, but this passively transferred HIV antibody has not persisted longer than 6 months (5).

Based on the history of the safety of IG products, the investigation of this case (which strongly suggests that the woman was exposed to HIV through other means),

\*Use of trade names is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services or the Public Health Service.

*HIV – Continued*

and the lack of evidence of HIV infection associated with Rh-IG despite receipt of these products by more than 350,000 women annually, there is no evidence to implicate this product as a source of HIV infection nor to change current recommendations for its use and administration.

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3. Wells MA, Wittek AE, Epstein JS, et al. Inactivation and partition of human T-cell lymphotropic virus, type III, during ethanol fractionation of plasma. *Transfusion* 1986;26:210-3.
4. Centers for Disease Control. Safety of therapeutic immune globulin preparations with respect to transmission of human T-lymphotropic [sic] virus type III/lymphadenopathy-associated virus infection. *MMWR* 1986;35:231-3.
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*Perspectives in Disease Prevention and Health Promotion***Substance Abuse Prevention Program – Albuquerque, New Mexico**

In 1983, Harrison Middle School in Albuquerque, New Mexico, implemented a successful substance abuse prevention program. ALL STAR, which stands for Activity Leadership Laboratories—Students Teaming Around Responsibility, emphasizes collaboration among students, teachers, school administrators, and parents in developing standards of student behavior. The program was designed in 1972 by the Center for Education Development, a nonprofit organization that until September 1987 served as the Southwest Regional Training Center for the U.S. Department of Education in San Antonio, Texas. The Albuquerque program resulted from a training session sponsored by the New Mexico Department of Education.

The ALL STAR program emphasizes the involvement of parents and community groups as well as students. The program uses student activities, clubs, and family-oriented programs such as mother-daughter aerobics classes and CPR classes to build self-esteem. Schools are encouraged to establish policies and procedures for dealing with drug and alcohol abuse, disruptive behavior, suspension referrals, and dropouts.

Surveys conducted in 1983 and 1986 documented substantive behavioral changes among the substantially Hispanic student population (73%) at Harrison Middle School. Self-reported alcohol use decreased from 63% in 1983 to 42% in 1986; use of inhalants decreased from 23% to 11%; use of depressants decreased from 28% to 10%; use of stimulants decreased from 35% to 15%; and use of phencyclidine or PCP decreased from 9% to 2%.

Violent behavior within the school also decreased. The number of students involved in fights declined from 27% to 18%; the proportion of teachers reporting disruptions in classrooms decreased from 65% to 55%; and reports of sexual threats or attacks decreased from 13% to 8%. The proportion of students sent to a doctor because of being injured at school declined from 15% to 6%.

*Substance Abuse – Continued*

In recognition of its achievement, Harrison Middle School received the Secretary's Community Health Promotion Award of Excellence from the Department of Health and Human Services.

*Reported by: C Lopez, Tamarron Substance Abuse Team, Albuquerque; L Pendley, New Mexico Office of Health Promotion, New Mexico Health and Environment Dept. Behavioral Epidemiology and Evaluation Br, Div of Health Education, Center for Health Promotion and Education, CDC.*

**Editorial Note:** Four major health goals listed in the 1990 objectives for the nation focus on reducing substance abuse among adolescents (1). Although the midcourse review of objectives indicates a decline in drug and alcohol use among 12- to 17-year-olds (2), the prevalence of such behavior remains excessive. National data on drug abuse among youth of middle school age in general and Hispanics in particular are unavailable. Nevertheless, the use of alcohol and drugs within the group studied in this project seems particularly high.

(Continued on page 736)

**TABLE I. Summary – cases of specified notifiable diseases, United States**

Disease	44th Week Ending			Cumulative, 44th Week Ending		
	Nov. 7, 1987	Nov. 1, 1986	Median 1982-1986	Nov. 7, 1987	Nov. 1, 1986	Median 1982-1986
Acquired Immunodeficiency Syndrome (AIDS)	659	373	N	16,294	11,280	N
Aseptic meningitis	219	279	279	9,770	9,132	8,768
Encephalitis: Primary (arthropod-borne & unspc)	38	27	37	1,113	1,038	1,118
Post-infectious	-	1	2	87	92	92
Gonorrhea: Civilian	13,317	19,026	18,182	653,168	753,701	753,701
Military	201	336	329	13,498	14,269	18,132
Hepatitis: Type A	362	474	474	20,599	19,222	19,222
Type B	413	442	553	21,344	21,861	21,861
Non A, Non B	42	72	N	2,490	3,021	N
Unspecified	51	64	123	2,648	3,716	4,882
Legionellosis	12	34	N	725	689	N
Leprosy	-	9	5	172	220	205
Malaria	5	9	17	744	972	885
Measles: Total*	17	79	15	3,517	5,770	2,434
Indigenous	16	76	N	3,099	5,468	N
Imported	1	3	N	418	302	N
Meningococcal infections: Total	51	50	50	2,432	2,126	2,284
Civilian	51	50	50	2,431	2,124	2,280
Military	-	-	-	1	2	7
Mumps	91	92	66	11,151	4,344	2,809
Pertussis	43	276	36	2,120	3,705	2,035
Rubella (German measles)	2	6	8	316	474	662
Syphilis (Primary & Secondary): Civilian	606	773	679	29,904	22,742	23,618
Military	1	2	6	133	142	257
Toxic Shock syndrome	3	9	N	275	303	N
Tuberculosis	410	401	454	17,863	18,464	18,464
Tularemia	2	3	3	174	132	231
Typhoid Fever	9	8	6	275	274	322
Typhus fever, tick-borne (RMSF)	9	15	10	571	712	789
Rabies, animal	54	101	107	3,960	4,744	4,744

**TABLE II. Notifiable diseases of low frequency, United States**

	Cum. 1987		Cum. 1987
Anthrax	1	Leptospirosis (Hawaii 1)	33
Botulism: Foodborne	10	Plague	9
Infant	44	Polioymyelitis, Paralytic	-
Other (Wash. 1)	2	Psittacosis (Col. 1; Mich. 1)	75
Brucellosis (Ky. 1)	97	Rabies, human	-
Cholera	4	Tetanus	35
Congenital rubella syndrome	5	Trichinosis	33
Congenital syphilis, ages < 1 year	127	Typhus fever, flea-borne (endemic, murine)	32
Diphtheria	3		

\*There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 7, 1987 and November 1, 1986 (44th Week)

Reporting Area	AIDS	Aseptic Mening- itis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel- losis	Leprosy
			Primary	Post-in- fectious			A	B	NA,NB	Unspeci- fied		
	Cum. 1987	1987	Cum. 1987	Cum. 1987	Cum. 1987	Cum. 1986	1987	1987	1987	1987	1987	Cum. 1987
UNITED STATES	16,294	219	1,113	87	653,168	753,701	362	413	42	51	12	172
NEW ENGLAND	629	7	39	2	20,208	18,316	12	42	2	6	1	12
Maine	26	1	4	-	584	750	-	-	-	1	1	-
N.H.	24	-	2	-	345	476	-	-	-	-	-	2
Vt.	9	-	5	-	196	233	-	1	1	-	-	-
Mass.	355	2	17	1	7,089	7,401	4	26	1	5	-	9
R.I.	53	1	3	1	1,852	1,539	2	3	-	-	-	-
Conn.	162	3	8	-	10,142	7,917	6	12	-	-	-	1
MID. ATLANTIC	4,523	31	126	7	101,379	129,188	22	66	1	6	-	19
Upstate N.Y.	570	7	46	3	14,141	15,581	6	6	-	-	-	-
N.Y. City	2,589	1	11	-	54,071	74,768	7	25	-	6	-	19
N.J.	914	10	8	-	13,579	16,508	6	21	1	-	-	-
Pa.	450	13	61	4	19,588	22,331	3	14	-	-	-	-
E.N. CENTRAL	1,036	44	323	12	100,007	102,093	19	42	4	1	1	8
Ohio	199	30	149	5	22,548	24,999	3	12	2	-	-	3
Ind.	88	-	44	-	8,068	10,617	4	7	-	1	-	-
Ill.	521	1	25	7	29,372	24,079	5	8	-	-	-	1
Mich.	146	13	70	-	31,805	31,455	7	15	2	-	1	3
Wis.	82	-	35	-	8,214	10,691	-	-	-	-	-	1
W.N. CENTRAL	370	21	79	-	26,659	32,531	33	10	5	1	1	-
Minn.	110	7	48	-	3,994	4,603	1	3	-	-	-	-
Iowa	24	1	13	-	2,567	3,338	1	-	2	1	-	-
Mo.	176	13	-	-	14,071	16,131	17	5	2	-	1	-
N. Dak.	2	-	1	-	235	276	-	-	-	-	-	-
S. Dak.	2	-	-	-	527	682	-	-	-	-	-	-
Nebr.	18	-	10	-	1,733	2,482	-	1	-	-	-	-
Kans.	38	-	7	-	3,532	5,019	14	1	1	-	-	-
S. ATLANTIC	2,799	30	153	30	172,436	194,767	23	76	5	5	1	5
Del.	21	-	5	1	2,910	3,263	-	-	-	-	-	-
Md.	353	3	19	5	19,548	22,747	4	17	-	2	-	2
D.C.	392	-	-	-	11,541	14,331	-	1	-	-	-	-
Va.	189	2	33	2	12,682	15,998	-	3	-	2	-	-
W. Va.	20	-	54	-	1,241	1,888	-	1	-	-	-	-
N.C.	142	15	26	-	25,282	30,131	7	15	1	-	-	-
S.C.	66	-	1	-	13,594	16,778	1	9	-	-	1	1
Ga.	401	3	1	-	30,788	32,252	3	12	-	-	-	-
Fla.	1,215	7	14	22	54,850	57,379	8	18	4	1	-	2
E.S. CENTRAL	248	15	55	7	49,527	60,573	9	18	2	-	3	-
Ky.	36	9	26	1	4,968	6,681	6	4	1	-	3	-
Tenn.	58	-	12	-	17,388	23,030	2	5	1	-	-	-
Ala.	130	6	17	1	15,720	17,694	1	9	-	-	-	-
Miss.	24	-	-	5	11,451	13,168	-	-	-	-	-	-
W.S. CENTRAL	1,725	41	134	4	74,258	88,044	58	53	2	17	1	4
Ark.	44	-	2	2	8,424	8,313	-	1	-	-	-	-
La.	273	4	23	-	12,801	15,377	6	25	1	-	-	-
Okla.	86	4	23	1	8,072	10,088	18	3	1	-	1	-
Tex.	1,322	33	86	1	44,961	54,266	34	24	-	17	-	4
MOUNTAIN	469	12	70	4	17,237	22,150	58	46	8	3	1	2
Mont.	4	-	1	-	482	596	-	2	-	-	-	-
Idaho	9	-	-	-	607	766	3	1	-	-	-	1
Wyo.	3	-	1	-	370	467	-	-	1	-	-	-
Colo.	192	5	39	-	3,896	5,713	4	8	1	1	-	-
N. Mex.	33	2	5	-	1,893	2,326	1	6	-	-	-	-
Ariz.	138	5	18	1	5,792	7,197	46	19	5	2	1	-
Utah	35	-	1	3	528	942	3	2	-	-	-	-
Nev.	55	-	5	-	3,669	4,143	1	8	1	-	-	1
PACIFIC	4,495	18	134	21	91,457	106,039	128	60	13	12	3	122
Wash.	254	-	11	4	7,472	8,057	48	28	5	-	1	5
Oreg.	141	-	-	-	3,451	4,507	14	9	4	-	-	-
Calif.	4,015	14	118	17	78,359	90,334	60	21	4	12	2	94
Alaska	12	1	2	-	1,453	2,311	6	1	-	-	-	-
Hawaii	73	3	3	-	722	1,082	-	1	-	-	-	23
Guam	3	-	-	-	175	180	2	-	-	-	-	-
P.R.	84	-	1	1	1,705	2,074	2	17	2	3	-	5
V.I.	-	-	-	-	230	242	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	342	415	-	1	-	-	-	46
Amer. Samoa	-	-	-	-	67	46	-	-	-	-	-	1

N: Not notifiable

U: Unavailable

**TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 7, 1987 and November 1, 1986 (44th Week)**

Reporting Area	Malaria	Measles (Rubeola)					Men- gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1987	1987	Cum. 1987	1987	Cum. 1987	Cum. 1986	Cum. 1987	1987	Cum. 1987	1987	Cum. 1987	Cum. 1986	1987	Cum. 1987	Cum. 1986
UNITED STATES	744	16	3,099	1	418	5,770	2,432	91	11,151	43	2,120	3,705	2	316	474
NEW ENGLAND	50	1	119	-	162	102	210	1	58	-	149	148	-	1	9
Maine	2	-	3	-	-	13	12	-	1	-	28	2	-	1	-
N.H.	2	-	61	-	102	43	18	-	10	-	37	79	-	-	1
Vt.	-	-	11	-	15	-	18	-	7	-	4	3	-	-	1
Mass.	19	1	27	-	38	36	102	1	22	-	51	34	-	-	4
R.I.	8	-	1	-	1	2	14	-	2	-	3	6	-	-	2
Conn.	19	-	16	-	6	8	46	-	16	-	26	24	-	-	1
MID. ATLANTIC	101	-	525	-	57	1,731	311	10	231	16	253	184	1	12	36
Upstate N.Y.	33	-	26	-	14	101	107	5	102	13	150	118	1	10	27
N.Y. City	19	-	444	-	19	697	31	-	10	-	8	10	-	1	5
N.J.	24	-	32	-	7	909	56	3	61	1	15	17	-	1	4
Pa.	25	-	23	-	17	24	117	2	58	2	80	39	-	-	-
E.N. CENTRAL	47	4	344	-	26	1,068	364	37	6,199	2	213	368	1	36	75
Ohio	12	-	1	-	4	10	121	-	93	-	69	158	-	-	1
Ind.	4	-	-	-	-	38	37	6	929	-	16	29	-	-	-
Ill.	7	4	170	-	18	675	89	7	2,550	-	14	37	1	26	65
Mich.	18	-	29	-	-	59	94	24	978	2	48	35	-	9	8
Wis.	6	-	144	-	4	286	23	-	1,649	-	66	106	-	1	1
W.N. CENTRAL	25	-	208	-	22	339	102	4	1,370	-	128	1,287	-	2	13
Minn.	8	-	19	-	20	49	28	-	774	-	13	47	-	-	1
Iowa	5	-	-	-	-	134	5	2	414	-	55	19	-	1	1
Mo.	6	-	188	-	1	31	30	-	28	-	31	20	-	-	1
N. Dak.	-	-	1	-	-	25	1	-	6	-	11	5	-	-	1
S. Dak.	-	-	-	-	-	-	2	-	90	-	3	14	-	-	-
Nebr.	5	-	-	-	-	1	6	-	4	-	1	7	-	-	-
Kans.	1	-	-	-	1	99	30	2	54	-	14	1,175	-	1	9
S. ATLANTIC	126	1	149	-	12	768	400	4	278	2	298	734	-	18	8
Del.	2	-	32	-	-	1	5	-	-	-	5	227	-	2	-
Md.	29	-	6	-	2	35	39	-	26	-	17	163	-	3	-
D.C.	17	-	-	-	1	2	9	-	1	-	-	-	-	1	-
Va.	24	-	1	-	-	60	64	-	73	1	50	39	-	1	-
W. Va.	2	-	-	-	-	2	3	2	39	-	50	23	-	-	-
N.C.	11	-	2	-	3	4	47	-	25	-	117	73	-	1	-
S.C.	6	-	2	-	-	301	37	1	18	-	-	18	-	-	-
Ga.	4	-	8	-	1	93	82	-	40	-	23	129	-	2	-
Fla.	31	1	98	-	5	270	114	1	56	1	36	62	-	8	8
E.S. CENTRAL	13	-	3	-	3	70	127	7	1,270	1	43	49	-	3	4
Ky.	1	-	-	-	-	6	21	3	223	-	2	5	-	2	4
Tenn.	1	-	-	-	-	56	56	3	986	1	13	18	-	1	-
Ala.	5	-	1	-	3	2	42	-	60	-	22	25	-	-	-
Miss.	6	-	2	-	-	6	8	N	N	-	6	1	-	-	-
W.S. CENTRAL	50	-	444	-	4	723	172	13	1,124	-	261	230	-	11	64
Ark.	1	-	-	-	-	283	21	-	291	-	12	18	-	2	-
La.	1	-	-	-	-	4	22	4	567	-	49	13	-	-	-
Okla.	4	-	3	-	1	39	23	N	N	-	149	116	-	5	-
Tex.	44	-	441	-	3	397	106	9	265	-	51	83	-	4	64
MOUNTAIN	37	1	481	-	19	329	85	6	220	11	180	256	-	24	23
Mont.	-	-	127	-	1	8	4	-	6	-	6	15	-	8	2
Idaho	3	-	-	-	-	1	6	-	5	6	56	42	-	1	-
Wyo.	1	-	-	-	2	-	-	-	-	-	5	4	-	1	1
Colo.	10	-	5	-	4	10	30	1	29	2	60	66	-	-	1
N. Mex.	2	-	312	-	9	38	6	N	N	-	12	21	-	-	-
Ariz.	17	1	35	-	1	258	26	4	163	3	33	65	-	4	2
Utah	1	-	-	-	1	12	9	-	12	-	8	39	-	10	14
Nev.	3	-	2	-	1	2	4	1	5	-	-	4	-	-	3
PACIFIC	295	9	826	1	113	640	661	9	401	11	595	449	-	209	242
Wash.	24	-	34	-	10	167	73	4	54	5	92	144	-	2	17
Oreg.	5	5	16	1	81	12	27	N	N	-	70	12	-	2	4
Calif.	262	4	776	-	17	432	546	5	325	2	209	280	-	133	215
Alaska	3	-	-	-	1	-	5	-	7	-	5	2	-	2	-
Hawaii	1	-	-	-	4	29	10	-	15	4	219	14	-	70	6
Guam	-	-	2	-	-	5	5	-	5	-	-	-	-	1	4
P.R.	1	-	755	-	-	36	5	-	12	-	16	19	-	3	62
V.I.	-	-	-	-	-	-	-	-	13	-	-	-	-	1	-
Pac. Trust Terr.	-	-	1	-	-	-	1	-	5	-	1	-	-	1	2
Amer. Samoa	-	-	1	-	-	2	-	-	6	-	-	-	-	-	1

\*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable <sup>1</sup>International <sup>2</sup>Out-of-state



**TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 7, 1987 and November 1, 1986 (44th Week)**

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic- shock Syndrome	Tuberculosis		Tula- remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1987	Cum. 1986		Cum. 1987	Cum. 1986				
UNITED STATES	29,904	22,742	3	17,863	18,464	174	275	571	3,960
NEW ENGLAND	534	409	-	542	610	1	28	7	7
Maine	1	19	-	22	34	-	1	-	3
N.H.	3	10	-	18	28	-	-	-	-
Vt.	2	9	-	12	16	-	1	-	-
Mass.	254	215	-	302	335	1	16	4	-
R.I.	10	19	-	52	42	-	3	-	1
Conn.	264	137	-	136	155	-	7	3	3
MID. ATLANTIC	5,572	3,227	-	3,197	3,672	1	29	25	350
Upstate N.Y.	215	172	-	429	517	1	8	11	52
N.Y. City	4,164	1,802	-	1,542	1,934	-	3	5	-
N.J.	568	567	-	563	620	-	18	1	15
Pa.	625	686	-	663	601	-	-	8	283
E.N. CENTRAL	771	762	-	2,021	2,184	3	31	42	146
Ohio	90	110	-	365	387	1	10	26	14
Ind.	53	98	-	196	238	-	4	1	17
Ill.	401	363	-	898	940	-	9	7	45
Mich.	170	154	-	475	520	-	5	5	27
Wis.	57	37	-	87	99	2	3	3	43
W.N. CENTRAL	156	183	1	512	548	61	11	53	849
Minn.	17	29	-	99	130	-	5	-	201
Iowa	25	8	-	35	44	4	2	1	244
Mo.	72	94	-	280	265	38	3	18	53
N. Dak.	-	6	-	8	10	1	-	-	95
S. Dak.	11	9	1	23	25	9	-	1	202
Nebr.	11	12	-	24	13	2	-	3	16
Kans.	20	25	-	43	61	7	1	30	38
S. ATLANTIC	10,330	6,868	1	3,847	3,659	5	30	219	1,086
Del.	64	52	-	36	40	1	-	2	-
Md.	542	393	-	336	275	-	4	46	365
D.C.	340	255	1	135	136	-	2	-	40
Va.	282	304	-	377	301	2	8	21	298
W. Va.	12	19	-	85	108	-	1	7	58
N.C.	606	441	-	448	488	2	3	80	8
S.C.	645	596	-	395	470	-	-	33	50
Ga.	1,441	1,275	-	678	613	-	-	28	185
Fla.	6,398	3,533	-	1,357	1,228	-	12	2	82
E.S. CENTRAL	1,630	1,524	-	1,610	1,652	8	4	94	283
Ky.	20	61	-	371	369	3	2	11	127
Tenn.	639	528	-	468	492	1	1	58	75
Ala.	428	449	-	473	516	1	1	15	74
Miss.	543	486	-	298	275	3	-	10	7
W.S. CENTRAL	3,762	4,509	-	2,104	2,307	67	26	116	534
Ark.	221	215	-	256	321	34	2	12	113
La.	711	783	-	235	376	3	-	-	13
Okla.	138	122	-	202	215	27	5	87	31
Tex.	2,692	3,389	-	1,411	1,395	3	19	17	377
MOUNTAIN	570	529	-	432	451	16	15	12	327
Mont.	9	6	-	13	21	2	-	10	145
Idaho	5	13	-	17	20	1	-	-	9
Wyo.	3	2	-	-	-	-	-	1	69
Colo.	106	118	-	40	54	5	-	-	7
N. Mex.	50	62	-	82	86	1	10	-	3
Ariz.	264	219	-	227	207	3	4	-	74
Utah	22	18	-	24	30	2	-	1	7
Nev.	111	91	-	29	33	2	1	-	13
PACIFIC	6,579	4,731	1	3,598	3,381	12	101	3	378
Wash.	120	152	-	208	173	4	7	-	-
Oreg.	260	100	-	103	109	5	2	1	-
Calif.	6,182	4,448	1	3,057	2,902	2	85	2	375
Alaska	4	-	-	58	46	1	-	-	3
Hawaii	13	31	-	172	151	-	7	-	-
Guam	2	1	-	26	34	-	-	-	-
P.R.	804	758	-	266	288	-	-	-	60
V.I.	9	1	-	2	1	-	-	-	-
Pac. Trust Terr.	222	223	-	143	67	-	20	-	-
Amer. Samoa	2	-	-	1	5	-	1	-	-

U: Unavailable

**TABLE IV. Deaths in 121 U.S. cities,\* week ending  
November 7, 1987 (44th Week)**

Reporting Area	All Causes, By Age (Years)						P&I**	Total	Reporting Area	All Causes, By Age (Years)						P&I**	Total
	All Ages	≥65	45-64	25-44	1-24	<1				All Ages	≥65	45-64	25-44	1-24	<1		
NEW ENGLAND	673	494	96	57	15	11	53		S. ATLANTIC	1,438	860	292	182	55	49	77	
Boston, Mass.	175	120	23	22	3	7	23		Atlanta, Ga.	152	90	29	26	4	3	3	
Bridgeport, Conn.	52	38	10	3	1	-	5		Baltimore, Md.	375	227	78	42	13	15	25	
Cambridge, Mass.	28	22	5	-	1	-	3		Charlotte, N.C.	90	53	21	11	3	2	7	
Fall River, Mass.	32	29	3	-	-	-	2		Jacksonville, Fla.	132	85	29	9	6	3	8	
Hartford, Conn.	55	41	9	4	1	-	2		Miami, Fla.	99	61	23	12	1	2	3	
Lowell, Mass.	36	28	4	2	2	-	1		Norfolk, Va.	61	45	6	3	3	4	6	
Lynn, Mass.	17	13	4	-	-	-	-		Richmond, Va.	88	52	29	2	3	2	7	
New Bedford, Mass.	26	22	1	2	1	-	2		Savannah, Ga.	29	15	9	3	-	2	3	
New Haven, Conn.	70	49	10	6	3	2	3		St. Petersburg, Fla.	66	51	8	4	1	2	-	
Providence, R.I.	39	24	5	7	1	2	1		Tampa, Fla.	58	37	11	2	2	6	3	
Somerville, Mass.	8	6	2	-	-	-	-		Washington, D.C.	263	123	47	67	18	8	11	
Springfield, Mass.	43	34	6	3	-	-	5		Wilmington, Del.	25	21	2	1	1	-	1	
Waterbury, Conn.	32	24	3	4	1	-	3		E.S. CENTRAL	806	545	167	51	19	24	48	
Worcester, Mass.	60	44	11	4	1	-	3		Birmingham, Ala.	133	87	24	11	6	5	3	
MID. ATLANTIC	2,640	1,756	515	242	56	69	120		Chattanooga, Tenn.	50	37	9	1	2	1	6	
Albany, N.Y.	50	35	8	3	1	3	1		Knoxville, Tenn.	92	63	19	4	1	5	10	
Allentown, Pa.‡	19	14	4	1	-	-	-		Louisville, Ky.	95	71	16	4	-	4	5	
Buffalo, N.Y.	133	105	15	6	3	3	14		Memphis, Tenn.	213	134	50	20	8	1	13	
Camden, N.J.	46	36	9	-	-	1	1		Mobile, Ala.	79	54	14	4	2	5	3	
Elizabeth, N.J.	15	11	1	3	-	-	-		Montgomery, Ala.	50	38	7	2	-	3	6	
Erie, Pa.†	58	42	9	3	3	1	4		Nashville, Tenn.	94	61	28	5	-	-	2	
Jersey City, N.J.	67	38	14	9	2	4	1		W.S. CENTRAL	1,250	769	268	114	51	47	61	
N.Y. City, N.Y.	1,462	920	299	174	29	40	64		Austin, Tex.	56	33	10	5	3	5	4	
Newark, N.J.	32	18	6	3	2	2	2		Baton Rouge, La.	36	21	8	6	-	1	2	
Paterson, N.J.	33	20	5	5	2	1	2		Corpus Christi, Tex.‡	47	32	11	3	1	-	1	
Philadelphia, Pa.	298	199	67	19	8	5	12		Dallas, Tex.	172	92	42	18	10	10	5	
Pittsburgh, Pa.†	64	49	12	2	-	1	1		El Paso, Tex.	70	43	16	2	4	5	2	
Reading, Pa.	30	24	6	-	-	-	3		Fort Worth, Tex.	104	62	22	10	5	5	10	
Rochester, N.Y.	121	87	24	5	4	1	7		Houston, Tex.‡	308	176	74	34	13	11	7	
Schenectady, N.Y.	19	15	2	2	-	-	-		Little Rock, Ark.	63	41	9	6	3	3	8	
Scranton, Pa.†	31	27	3	-	1	-	-		New Orleans, La.	111	77	22	7	4	1	-	
Syracuse, N.Y.	78	53	17	3	1	4	3		San Antonio, Tex.	179	124	33	14	6	2	14	
Trenton, N.J.	25	14	6	2	-	3	2		Shreveport, La.	37	25	6	4	-	2	4	
Utica, N.Y.	27	22	4	1	-	-	-		Tulsa, Okla.	67	43	15	5	2	2	4	
Yonkers, N.Y.‡	32	27	4	1	-	-	2		MOUNTAIN	636	407	132	53	23	21	30	
E.N. CENTRAL	2,263	1,472	473	175	64	78	100		Albuquerque, N. Mex.	85	61	13	7	3	1	4	
Akron, Ohio	51	37	7	2	2	3	-		Colo. Springs, Colo.	34	19	11	2	1	1	4	
Canton, Ohio	32	24	6	1	-	1	4		Denver, Colo.	120	77	28	8	1	6	6	
Chicago, Ill.‡	564	362	125	45	10	22	16		Las Vegas, Nev.	90	51	22	12	3	2	6	
Cincinnati, Ohio	126	81	22	16	1	6	14		Ogden, Utah	23	20	2	1	-	-	3	
Cleveland, Ohio	162	87	41	22	7	5	1		Phoenix, Ariz.	136	80	30	11	8	7	1	
Columbus, Ohio	124	79	29	9	4	2	3		Pueblo, Colo.	24	21	2	1	-	-	2	
Dayton, Ohio	134	83	32	9	2	8	18		Salt Lake City, Utah	40	21	5	5	6	3	2	
Detroit, Mich.	237	135	59	27	10	6	6		Tucson, Ariz.	84	57	19	6	1	1	2	
Evansville, Ind.	36	25	7	1	2	1	-		PACIFIC	1,862	1,251	360	154	56	36	116	
Fort Wayne, Ind.	66	44	16	1	1	4	3		Berkeley, Calif.	16	11	4	1	-	-	1	
Gary, Ind.	17	12	2	1	2	-	-		Fresno, Calif.	79	54	16	6	1	2	9	
Grand Rapids, Mich.	32	25	3	4	-	-	4		Glendale, Calif.	16	13	3	-	-	-	1	
Indianapolis, Ind.	163	106	35	13	4	5	2		Honolulu, Hawaii	78	53	19	4	-	2	13	
Madison, Wis.‡	38	25	6	2	3	2	2		Long Beach, Calif.	77	55	17	2	1	2	4	
Milwaukee, Wis.	161	116	28	3	10	4	3		Los Angeles Calif.	490	327	86	50	19	5	8	
Peoria, Ill.	47	33	9	3	1	1	8		Oakland, Calif.‡	74	49	14	6	3	2	4	
Rockford, Ill.	52	32	8	5	3	4	5		Pasadena, Calif.	36	24	6	3	1	2	3	
South Bend, Ind.	47	32	10	3	2	-	2		Portland, Oreg.	125	81	27	11	1	5	8	
Toledo, Ohio	94	72	15	5	-	2	8		Sacramento, Calif.	144	98	28	6	11	1	12	
Youngstown, Ohio	80	62	13	3	-	2	-		San Diego, Calif.	103	74	14	10	-	4	6	
W.N. CENTRAL	751	525	136	47	20	23	52		San Francisco, Calif.	185	105	40	30	6	3	13	
Des Moines, Iowa	60	48	8	3	-	1	4		San Jose, Calif.	171	117	31	12	6	5	19	
Duluth, Minn.	22	16	5	1	-	-	1		Seattle, Wash.	168	114	37	11	4	2	6	
Kansas City, Kans.	24	17	5	1	1	-	-		Spokane, Wash.	64	47	14	1	2	-	7	
Kansas City, Mo.	140	88	32	10	6	4	15		Tacoma, Wash.	36	29	4	1	1	1	2	
Lincoln, Nebr.	29	25	1	3	-	-	4		TOTAL	12,319 <sup>††</sup>	8,079	2,439	1,075	359	358	657	
Minneapolis, Minn.	100	76	12	9	2	1	8										
Omaha, Nebr.	88	64	12	4	3	5	7										
St. Louis, Mo.	151	95	32	12	6	6	7										
St. Paul, Minn.	71	51	15	2	-	3	-										
Wichita, Kans.	66	45	14	2	2	3	6										

\*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

\*\*Pneumonia and influenza.

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

‡Data not available. Figures are estimates based on average of past 4 weeks.

**TABLE V. Estimated years of potential life lost before age 65 and cause-specific mortality, by cause of death — United States, 1985**

Cause of mortality (Ninth Revision ICD)	YPLL for persons dying in 1985*	Cause-specific mortality, 1985† (rate/100,000)
ALL CAUSES (Total)	11,844,475	874.8
Unintentional injuries <sup>‡</sup> (E800-E949)	2,235,064	38.6
<b>Malignant neoplasms (140-208)</b>	<b>1,813,245</b>	<b>191.7</b>
Diseases of the heart (390-398,402,404-429)	1,600,265	325.0
Suicide, homicide (E950-E978)	1,241,688	20.1
Congenital anomalies (740-759)	694,715	5.5
Prematurity <sup>§</sup> (765, 769)	444,931	2.9
Sudden infant death syndrome (798)	313,386	2.0
Cerebrovascular disease (430-438)	253,044	64.0
Chronic liver diseases and cirrhosis (571)	235,629	11.2
Pneumonia and influenza (480-487)	168,949	27.9
Acquired immunodeficiency syndrome (AIDS)**	152,595	2.3
Chronic obstructive pulmonary diseases (490-496)	129,815	31.2
Diabetes mellitus (250)	128,229	16.2

\*For details of calculation, see footnotes to Table V, *MMWR* 1987;36:56.

†Cause-specific mortality rates as reported in the National Center for Health Statistics' *Monthly Vital Statistics Report* are compiled from a 10% sample of all deaths.

‡Equivalent to accidents and adverse effects.

§Category derived from disorders relating to short gestation and respiratory distress syndrome.

\*\*Reflects CDC surveillance data.

*Substance Abuse — Continued*

This school-based substance abuse program, which engenders support from parents, students, and community groups, is apparently associated with positive changes in self-reported rates of substance abuse among program participants. Without a control or comparison group, however, interpretation of the results is problematic. There may be alternative explanations for the outcomes.

The ALL STAR program exemplifies many community-level efforts to mitigate complex problems such as drug abuse and violence among youth. These programs follow sound theoretical tenets and often borrow from other programs that have been used successfully elsewhere. They typically require considerable voluntary support, have small budgets and limited staff, and lack the resources necessary for evaluation. Public health professionals need to be aware of these problems and should encourage programs that show promise even though evaluation may be incomplete.

*References*

1. Public Health Service. Healthy people: the Surgeon General's report on health promotion and disease prevention. Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, 1979; DHEW publication no. (PHS)79-55071.
2. Public Health Service. The 1990 health objectives for the nation: a midcourse review. Washington, DC: US Department of Health and Human Services, Public Health Service, 1986.

*Current Trends***Premature Mortality due to Breast Cancer— United States, 1984**

In 1984, malignant neoplasms ranked second among all causes of years of potential life lost (YPLL) before age 65\* (1,2). Malignant neoplasms ranked fourth as a cause of premature mortality for men; however, they were the leading cause of YPLL before age 65 for women (2). In 1984, malignant neoplasms accounted for 21% (approximately 887,000 lost years) of all YPLL before age 65 among women. Breast cancer alone accounts for nearly 26% of all YPLL due to malignant neoplasms among women and is the leading contributor to premature mortality in this category.

White women account for 84% of all YPLL due to breast cancer; black women have the next highest total YPLL (Table 1). The rate of YPLL, however, is 13% higher among black than among white women. This difference reflects the higher age-specific mortality rate among black women under age 50 (3) and the greater proportion of all deaths from breast cancer among black women under age 65 (61% for black women compared with 45% for white women).

\*YPLL and YPLL rates were calculated according to standard methods cited in *MMWR Supplement*, No. 2S, Vol. 35, entitled *Premature Mortality in the United States*. Mortality figures were for U.S. residents and were obtained from the final mortality tape for 1984 from the National Center for Health Statistics.

**TABLE 1. Years of potential life lost (YPLL) due to breast cancer among females before age 65 years, by race — United States, 1984**

Race	Total YPLL	(%)	YPLL Rate*	YPLL Rate Ratio
White	190,349	(83.8)	216	1.0
Black	33,839	(14.9)	248	1.2
Other	2,917	(1.3)	98	0.5
<b>Total</b>	<b>227,105</b>	<b>(100.0)</b>	<b>217</b>	<b>—</b>

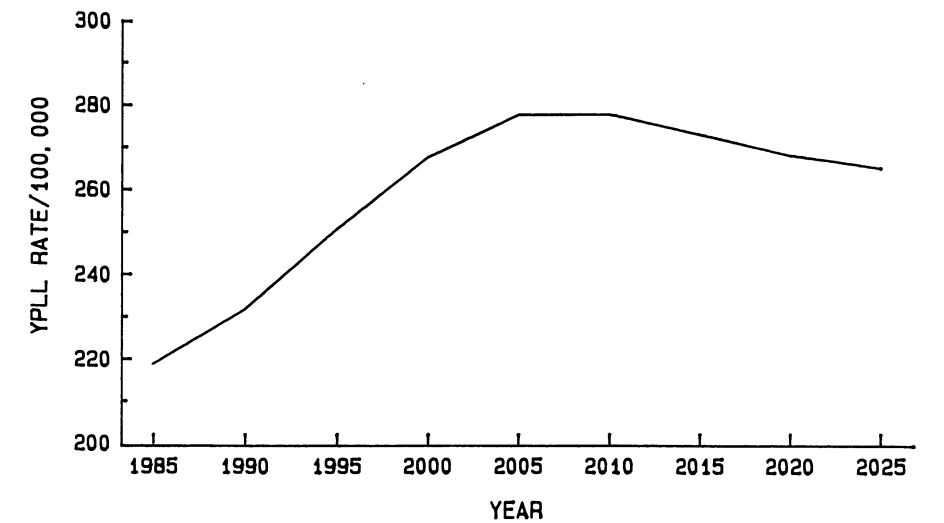
\*Per 100,000 population.

Premature Mortality – Continued

As a measure of premature mortality, the magnitude of cause-specific YPLL is subject to both age-specific mortality rates and the age structure of the population. Any interpretation of YPLL over time must consider not only trends in the age-specific mortality rate, but also shifts in both the age structure and relative size of the population being studied. These considerations take on particular significance for breast cancer because of the dramatic changes that are now taking place in the size of the population at risk. Just prior to 1945 both the birth rate and the annual number of births began the remarkable climb known as the “baby boom.” If 1945 is considered as the first year of the baby boom, then this cohort is just reaching 40, the age when breast cancer incidence begins to climb sharply (4).

In 1985, approximately 57 million women were 35 years of age or older. By the year 2025, the number of women in that age group will have increased by 61%, to nearly 91 million (5). If age-specific incidence and mortality rates remain relatively stable, as they have during the past 10 years (3), the number of breast cancer cases and deaths and the annual number and rate of YPLL will increase substantially over the next 40 years (Figure 1). The projected increase in the YPLL rate begins to slow near the year 2000 and by 2010 will begin to decline with the size of the population of women under age 65. Because these projections assume no change in age-specific mortality rates, this projected decline in the YPLL rate is due entirely to a relative decline in the number of women under age 65. Since measures of YPLL are used to evaluate the efficacy of public health strategies for reducing premature mortality, the influence of dynamic populations on observed rates should not be neglected.

**FIGURE 1. Projected rate of YPLL\* due to breast cancer among women before age 65, by year – United States, 1985-2025**



\*Projected YPLL rates were calculated by applying the age-specific (5-year intervals) rate of YPLL per 100,000 women in 1984 to the projected size of these age intervals between 1985 and 2025 to produce a total YPLL for each age category for each year (5). The projected YPLL totals for each age category were then added to produce a total for each interval year, and a rate per 100,000 was then calculated on the basis of the projected size of the population under age 65.

*Premature Mortality — Continued*

Observed YPLL and YPLL rates must be compared to expected YPLL and YPLL rates to control for changes in the population structure.

*Reported by: Chronic Disease Control Div, Center for Environmental Health and Injury Control, CDC.*

**Editorial Note:** According to current estimates, 130,000 women in the United States will be diagnosed with invasive breast cancer and 41,000 women will die from the disease in 1987 (6). Breast cancer accounts for 27% of all newly diagnosed female cancers and 18% of female cancer deaths and was only recently surpassed by lung cancer as the leading cause of cancer mortality among females (6). An examination of incidence rates between 1975 and 1984 reveals a small but gradual increase of about 1% per year. Overall, age-adjusted incidence rates are higher for white women than for black women, but this difference appears to be declining over time (3).

The age-adjusted mortality rate from breast cancer for all females has not changed significantly in the past 10 years. Mortality rates for black women and white women are similar, although 5-year relative survival is measurably poorer among black women than among white women for the period 1975-1984. The difference is substantially reduced when the survival rates are adjusted for age, stage of cancer upon detection, and proxy measures of low-income status. Investigators have suggested that poor survival among low-income groups may be due to lower host resistance, poor access to health care, and personal health-care practices (7,8). While differences in the stage at detection do not fully account for differences in survival (3), survival is much improved if breast cancer is detected early, when it is localized.<sup>†</sup> However, only approximately 50% of breast cancers are diagnosed while still localized to the breast (3).

Application of secondary prevention guidelines recommended by the American Cancer Society (ACS) and the National Cancer Institute (NCI) has great potential to reduce mortality from breast cancer (9-11). The ACS recommends that women have a baseline mammogram between the ages of 35 and 40 and annual or biannual screening mammography between the ages of 40 and 49. Both ACS and NCI recommend annual screening mammography for women age 50 and above. The ACS also recommends that all women perform breast self-examination every month and that women between the ages of 40 and 50 have an annual physical examination of the breast. Both groups recommend annual physical examinations for women over age 50.

The value of these secondary prevention guidelines is confirmed by the results of recent follow-up studies of participants in screening programs. The most recent follow-up study of 62,000 women between the ages of 40 and 64 enrolled in the Health Insurance Plan of Greater New York (HIP) randomized clinical trial revealed 23% fewer breast cancer deaths among the study group than among controls (12). Follow-up of 280,000 women between the ages of 35 and 74 who were participants in the Breast Cancer Demonstration Project (BCDP) has also shown a significant advantage in survival for women whose breast cancers were discovered with screening mammography. Using data from NCI's SEER program (Surveillance, Epidemiology and End Results) as a comparison group, the 8-year relative survival rate among the BCDP group reveals 46% fewer breast cancer deaths (12). Furthermore, results from both studies show similar survival rates for women between the

<sup>†</sup>Five-year relative survival rates are 96% for patients with cancers detected at Stage I (< 2 cm, nodes negative) and 50% for those with cancers detected at Stage III (> 2 cm, nodes positive)(3).

*Premature Mortality — Continued*

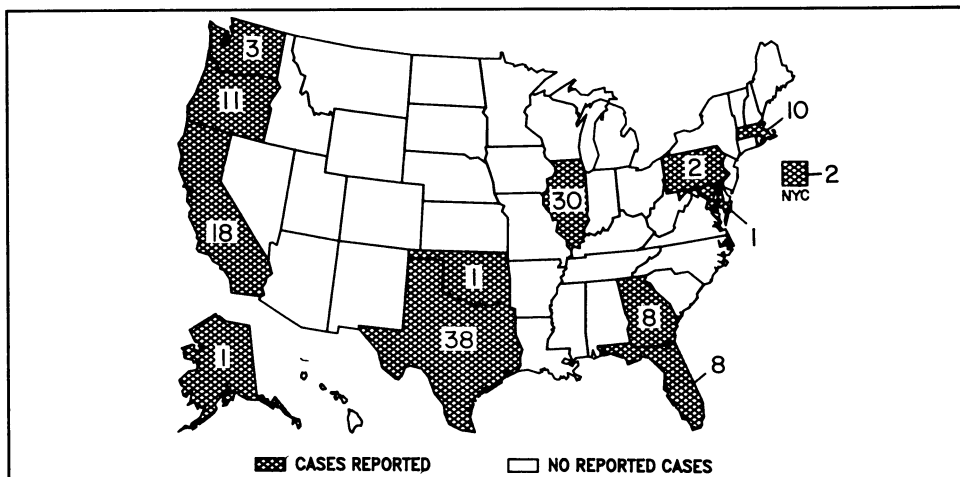
ages of 40 and 49. These results support recommendations that women in this age group receive screening at least every 2 years (12). Differences between ACS and NCI screening recommendations for women between the ages of 40 and 49 reflect disagreement over earlier evidence of the value of screening mammography for women under the age of 50. As results from ongoing research become available, these guidelines are likely to become more similar.

Without comprehensive breast cancer screening initiatives and increased regular screening for breast cancer, premature and overall mortality from breast cancer will rise markedly over time. Comprehensive screening initiatives hold great promise for reducing mortality from breast cancer. Given our poor understanding of the etiology of breast cancer and recent evidence that screening mammography helps reduce mortality from breast cancer for women between the ages of 40 and 49 as well as those over age 50, a woman's age becomes the single most relevant factor for recommending screening. Since endorsement and referral are essential to compliance, interventions should target health-care providers as well as women in the recommended age categories. Further, the success of any screening test depends not only on its ability to achieve acceptable levels of sensitivity and specificity but also on the maintenance of a high level of quality assurance. Until screening for breast cancer becomes a routine preventive practice, mortality from breast cancer will remain an increasingly serious public health problem.

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FIGURE I. Reported measles cases — United States, Weeks 40-43, 1987



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